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AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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Title: EXTERNAL DISCRIMINATION BETWEEN PACE PULSES AT DIFFERENT HEART LOCATIONS

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IN THE SPECIFICATION

Please amend the paragraph beginning on page 6, line 20 as follows:

FIG. 4 is a schematic diagram, similar to FIG. 2, but including a depolarization detector circuit 300 214 to assist in providing location assignments, such as when a pace pulse is detected as having different polarities on the second ECG vector **106B** and the third ECG vector **106C**. In this example, the depolarization detector circuit 300 214 includes a level detector circuit (or other suitable circuit, which may include filtering over a particular band and/or other signal processing) capable of distinguishing smaller amplitude atrial heart depolarizations from larger amplitude ventricular heart depolarizations.

Please amend the paragraph beginning on page 10, line 18 as follows:

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To accommodate unipolar pacing and/or bi-ventricular pacing—or various other more complicated pacing modalities—the external device **200** of FIG. 2 includes a pacing pulse detector circuit **206** that is capable of providing one or more other characteristics of pace pulses that are capable of distinguishing between pace pulses delivered to different locations. For example, by sampling the ECG data obtained from the electrodes **100A-C** at a sampling rate of at least 60kHz, an amplitude and/or a pulselwidth of pace pulses can be measured by the pacing pulse detector circuit **206**. Moreover, polarity information may also be obtained, such as discussed above. Furthermore, the pace pulse detector circuit **206** can be used in combination with the depolarization detector circuit 300 214 to provide further characterizing information—such as a time difference between a pace pulse and a depolarization occurring soon (e.g., within a predetermined time period) before and/or after the pace pulse. The characterizing information (e.g., polarity, amplitude, pulselwidth, time difference with respect to a heart depolarization, etc.) can be used to recognize and distinguish between different classes of paces.